

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF NEW YORK

BRIGGS & STRATTON CORP. and
BRIGGS & STRATTON POWER
PRODUCTS GROUP, LLC,

Plaintiffs,

-against-

5:13-CV-0316 (LEK/ATB)

CHONGQING RATO POWER CO., LTD.;
RATO NORTH AMERICA; and DENVER
GLOBAL PRODUCTS, INC.,

Defendants.

MEMORANDUM-DECISION and ORDER

I. INTRODUCTION

Before the Court are Defendants Chongqing Rato Power Co. Ltd., Rato North America, and Denver Global Products, Inc.'s (collectively, "Defendants") Motions for summary judgment, as well as both parties' claim construction Briefs. Dkt. Nos. 82 ("Defendants' '678 Motion"); 82-1 ("Defendants' '678 Memorandum"); 83 ("Defendants' '746 Motion"); 83-1 ("Defendants' '746 Memorandum"); 91 ("Plaintiffs' CC Brief"); 94 ("Defendants' CC Brief"); 95 ("Defendants' Indefiniteness Motion"); 95-1 ("Defendants' Indefiniteness Memorandum"). Plaintiffs Briggs & Stratton Corp. and Briggs & Stratton Power Products Group, LLC (collectively, "Plaintiffs") have responded to each Motion, and Defendants have replied. Dkt. Nos. 92 ("Plaintiffs' '678 Response"); 93 ("Plaintiffs' '746 Response"); 98 ("Defendants' '678 Reply"); 99 ("Defendants' '746 Reply"); 102 ("Plaintiffs' Indefiniteness Response"); 105 ("Defendants' Indefiniteness Reply"). The Court further permitted Plaintiffs to file a combined Sur-Reply Memorandum addressing both the '678 and '746 Motions. Dkt. Nos. 101-1 ("Plaintiffs' Sur-Reply"); 103.

Additionally, each side has submitted a rebuttal to the other's CC Brief. Dkt. Nos. 106 ("Plaintiffs' CC Rebuttal"); 107 ("Defendants' CC Rebuttal"). For the following reasons, the Court grants Defendants' '678 Motion, and denies their '746 and Indefiniteness Motions.

II. BACKGROUND

At issue in this case is whether Defendants' production and sale of a multi-purpose vehicle known as the RAVEN infringes on two of Plaintiffs' patents, U.S. Patent Nos. 6,510,678 (the "'678 patent") and 7,107,746 (the "'746 patent"). The '678 patent refers to a suspension system employing a "load compensation adjuster." '678 patent col. 2:45-50. According to the specification, the '678 patent primarily strives to solve the problem of full compression of the suspension's weight-bearing spring, which causes discomfort to the rider and can reduce the life of the suspension's spring due to "coil bind." Id. col. 2:31-40. Claim 34 of the '678 patent further defines a method for constructing a mower that contains the claimed independent suspension. Id. col. 11:22-12:6. The '746 patent refers to the overall design of a mower implementing the independent suspension that Plaintiffs claim also appears in the RAVEN. See generally '746 patent.

Plaintiffs filed this action and moved for a preliminary injunction enjoining Defendants from manufacturing or selling the RAVEN unit. Dkt. Nos. 1 ("Complaint"); 27 ("PI Motion"). In their PI Motion, Plaintiffs alleged that they were likely to succeed in showing that the RAVEN infringed one claim, Claim 39, from the '678 patent and another, Claim 6, from the '746 patent, and that they were facing irreparable harm. Dkt. No. 27-1 ("PI Memorandum") at 10-24. The Court found that Defendants were likely to show that Claim 39 was invalid, and therefore Plaintiffs were not likely to succeed on the merits of that claim. Dkt. No. 70 ("PI Order") at 10-25. But, although the Court disagreed with Plaintiffs' construction of "central longitudinal beam," it nevertheless found that

Plaintiffs had raised a sufficiently serious question going to the merits of their claim that the RAVEN infringed Claim 6 of the '746 patent. Id. at 25-33. However, the Court declined to grant preliminary injunctive relief because Plaintiffs had not shown irreparable harm. Id. at 37-42. Following discovery, both parties filed their CC Briefs, and Defendants simultaneously moved for summary judgment.

III. CLAIM CONSTRUCTION

The construction and interpretation of patent claims is an issue of law for courts to decide. Markman v. Westview Instruments, Inc., 517 U.S. 370, 390 (1996). Although some summary judgment motions may be appropriate for decision without a full and complete construction of the claims at issue, see Vivid Techs., Inc. v. Am. Science & Eng'g, Inc., 200 F.3d 795, 803 (Fed. Cir. 1999) (holding that construction need only be completed “to the extent necessary to resolve the controversy”); Peter S. Menell, et al., *Patent Claim Construction: A Modern Synthesis and Structured Framework*, 25 BERK. TECH. L.J. 711, 806-13 (2010) (suggesting that some obviousness motions may be decided without claim construction), courts often simultaneously undertake a complete claim construction and decide summary judgment motions, see, e.g., V-Formation, Inc. v. Benetton Grp. SpA, 401 F.3d 1307, 1310 (Fed. Cir. 2005) (affirming as proper district court’s simultaneous claim construction and grant of summary judgment). Because the majority of Defendants’ Motions rely on either the construction of certain claims or the scope of the patent, the Court shall first construe the disputed claims outlined in the parties’ Joint Claim Construction Statement. Dkt. No. 81 (“JCCS”).

A. Legal Standard

The Federal Circuit has set forth a framework for claim construction. See generally Phillips

v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005). Courts should first determine if the terms of a claim would have “ordinary and customary meaning” to “a person of ordinary skill in the art.” Id. at 1312-13 (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996)). In cases where a claim’s “ordinary and customary meaning” is apparent, courts should credit that meaning except where the inventor’s own lexicography elsewhere in the patent contradicts that customary meaning; in such circumstances, the inventor’s definition controls. Phillips, 415 F.3d at 1316.

Where one of ordinary skill in the art would not find a clear meaning in the claim terms alone, courts should turn to intrinsic and extrinsic evidence. Id. at 1317-19. Intrinsic evidence consists of the parts of the patent file itself—the specification, the other claims, and the prosecution history—and carries more weight in determining the meaning of uncertain claim terms. Id. at 1317. Extrinsic evidence includes expert testimony, dictionaries, and technical treatises and should be granted less weight than intrinsic evidence. Id. at 1318-19. There is no order or structure for considering these types of evidence; courts simply must grant appropriate weight to each piece of evidence in view of the overall construction of a claim. Id. at 1324.

In cases where a claim term simply cannot be construed by a person of ordinary skill in the art, that claim is considered to be indefinite. Previously, the standard for showing indefiniteness was whether the term was “not amenable to construction” or was “insolubly ambiguous.” Datamize, LLC v. Plumtree Software, Inc., 417 F.3d 1342, 1347 (Fed. Cir. 2005). However, Supreme Court recently revised the standard for indefiniteness to whether a claim “inform[s] those skilled in the art about the scope of the invention with reasonable certainty.” Nautilus, Inc. v. Biosig Instrs., Inc., Case No. 13-369, slip op. at 11-12 (2014) (“To tolerate imprecision just short of that

rendering a claim ‘insolubly ambiguous’ would diminish the definiteness requirement’s public-notice function and foster the innovation-discouraging ‘zone of uncertainty.’”). Additionally, because indefiniteness is a form of invalidity, the burden is on the defendant to prove that the claim is indefinite by clear and convincing evidence. Eli Lilly & Co. v. Barr Labs., Inc., 251 F.3d 955, 962 (Fed. Cir. 2001).

B. Person of Ordinary Skill in the Art

The Court previously found that the parties were in agreement that a person of ordinary skill in the art in question would have at least a bachelor’s degree in mechanical engineering, as well as experience in the design or analysis of dynamic systems. PI Order at 7. The parties’ experts have revised their definitions of a person with ordinary skill in the art; they agree that such a person would have experience in the design or development of suspension systems. See, e.g., Dkt. No. 84 (“Radcliffe Declaration”) ¶ 19. However, they disagree on whether or not a person of ordinary skill in the art need also have experience in the design and development of lawnmowers. Id. ¶ 20; Dkt. No. 92-2 (“Hicks Declaration”) ¶ 24. Plaintiff’s expert, Mr. Timothy M. Hicks (“Hicks”) states, in support of his definition, that experience with lawnmowers is important in that “‘the essential mower function’ is ‘cutting grass to a uniform height,’” and therefore particular attention must be paid to preserving that function in light of the tendency of a vehicle with suspension to “pitch and roll as it passes over bumps.” Id. (quoting ’678 patent). To the extent this dispute is meaningful in claim construction, the parties do not argue it in their CC Briefs. See generally Pls.’ CC Br.; Defs.’ CC Br. Accordingly, the Court makes no judgment at this time regarding whether a person of ordinary skill in the art would need to have experience in the design of lawnmowers.

C. Analysis¹

1. '678 patent

The parties disagree on the construction of seven relevant terms in the '678 patent. These terms appear in Claim 34, an independent claim from which all other putatively infringed claims depend. Claim 34 reads:

A method for assembling a mower, the method comprising:

providing a main frame with a cutter deck and at least one rotatable cutter in the cutter deck;

placing two wheels on opposite sides of the main frame;

coupling each wheel to the main frame with a respective independent suspension, each independent suspension having a spring and a load compensation adjuster, wherein each independent suspension and wheel is movable vertically up and down relative to the main frame, respectively against and with force exerted by the spring and by the load compensation adjuster when compressed, independently of movement of the other wheel;

positioning the spring of each independent suspension to bias a respective wheel of the two wheels in a downward direction, the spring having a range of compression between uncompressed and fully compressed states;

positioning the load compensation adjuster of each independent suspension in a location inside a respective spring of the independent suspension, the load compensation adjuster having a range of compression;

preventing full compression of the spring with the load compensation adjuster;

placing two additional wheels on opposite sides of the main frame;

coupling each additional wheel to the main frame; and

coupling the cutter deck to the main frame.

¹ The Court construes the disputed claim terms in the order of priority specified in the parties' JCCS. See generally JCCS.

'678 patent col. 11:22-12:6.

a. “load compensation adjuster”

Central to the scope and effect of the '678 patent as a whole is the definition of “load compensation adjuster,” a mechanism present in the independent suspension. As a preliminary matter, the parties agree that the “load compensation adjuster” has no customary or usual meaning to a person of ordinary skill in the art. See Defs.’ CC Br. at 2. As a result, the Court must examine and weigh the intrinsic and extrinsic evidence.

Plaintiffs assert that a plain-English reading of “load compensation adjuster” suggests that the mechanism “is adjustable to compensate for loads of differing weights.” Pls.’ CC Br. at 12. The Court reads this phrase differently. Plaintiffs’ textual interpretation would make sense if the mechanism were dubbed an “adjustable load compensator.” A more natural reading, however, leads to the definition that a “load compensation adjuster” is a part of the system that adjusts the way the system compensates for loads of differing weights. The '678 patent’s specification supports this reading.

The specification puts into context what a “load compensation adjuster” is in view of the entire suspension:

A load compensation adjuster is employed as part of the rear wheel suspension system that compensates for riders having significantly differing weights, as well as for weight changes occurring during the mowing operation, such as from grass clippings accumulating in a grass catcher bag.

'678 patent col. 2:46-50. The description makes clear that the rear wheel suspension system as a whole—not the load compensation adjuster itself, *per se*—is what compensates for riders of differing weights. Rather, consistent with the lay-English meaning of “load compensation adjuster,”

the role of the load compensation adjuster is to adjust the way that the suspension compensates for differing loads. Cf. Hicks Decl. ¶ 38; ‘678 patent col. 2:31-40. The specification’s descriptions of Figures 14-16 further state that the role of the embodiments is “load compensation *adjustment*,” not simply load compensation.

All embodiments listed in the specification are fully consistent with this definition. The identified embodiments include an “Overload Spring 100,” a “Shock Absorber 102,” an “Air Shock 104,” and an “Airbag 106.” Id. cols. 6:40-49; 7:9-11; 7:14-15; 7:24-25. Each of these embodiments adjusts the way that the suspension’s main weight-bearing spring compensates for different weights—i.e., the amount of tension created in the spring—slightly differently. The preferred embodiment, the Overload Spring 100, is an inch shorter than the main suspension spring 72 such that “spring 72 [may] operate at its existing rate, but when spring 72 is compressed more than one inch, overload spring 100 begins to help carry the extra weight.” Id. col. 6:46-49. Shock Absorber 102, Air Shock 104, and Airbag 106 provide essentially similar functionality in that they adjust the tension in the spring in at least some levels of compression.

Plaintiffs maintain, however, that because each load compensation adjuster is itself adjustable, that functionality is vital and should be read into the term’s construction. Pls.’ CC Br. at 12-13; Pls.’ CC Rebuttal at 10. Not only is this assertion contrary to the plain-English meaning of “adjuster,” it also lacks any basis in the claim language and the specification. An adjuster, by definition, adjusts; that an object adjusts provides no context for whether it may also be adjusted. Furthermore, Overload Spring 100—which alone is the preferred embodiment of a load compensation adjuster—is not itself adjustable. Hicks explains that Nut 98 may be tightened or loosened to adjust the tension in Overload Spring 100. Hicks Decl. ¶ 14. However, the patent

language does not claim that Nut 98 is part of the load compensation adjuster, and its stated purpose is to pre-compress Spring 72, not Overload Spring 100. See '678 patent col. 6:19-29. Indeed, for the purposes of the patent, Nut 98 need not be adjustable. See id. (“Nut 98 is *preferably* adjustable so that the amount of pre-compression can be changed when required.” (emphasis added)). “[A] claim interpretation that excludes a preferred embodiment from the scope of the claim is rarely, if ever, correct.” Accent Packaging, Inc. v. Leggett & Platt, Inc., 707 F.3d 1318, 1326 (Fed. Cir. 2013). Accordingly, the Court will not read adjustability into the claim construction.

Defendants claim that a load compensation adjuster should “carry part of the weight placed on the main frame.” Defs.’ CC Br. at 2. However, that construction is inaccurate. The preferred embodiment, the Overload Spring 100, only carries weight when the main suspension spring is compressed more than one inch. '678 patent col. 6:46-49. Again, because “[a] claim construction that excludes the preferred embodiment ‘is rarely, if ever, correct and would require highly persuasive evidentiary support,’” Adams Respiratory Therapeutics, Inc. v. Perrigo Co., 616 F.3d 1283, 1290 (Fed. Cir. 2010) (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1583-84 (Fed. Cir. 1996)), and Defendants have provided no such support, the Court rejects the proposed definition.

Finally, Defendants argue that “load compensation adjuster” is indefinite. Defs.’ CC Br. at 5-6. As basis, Defendants argue that a hydraulic shock absorber, such as Shock Absorber 102, never “carries part of the weight” and therefore does not fit the description. To the extent Defendants argue that the load compensation adjuster must always carry some of the weight, the Court has shown above that the position is misguided. To the extent Defendants wish to impose a restriction that the load compensation adjuster must *sometimes* carry part of the weight, they overgeneralize the

description of what one embodiment of a load compensation adjuster, the Overload Spring 100, does. '678 patent col. 6:48-49. Meanwhile, all embodiments perform a common function, adjusting the tension in the spring at some levels of compression, that is consistent with the plain-English meaning of “load compensation adjuster” and the stated aim of the load compensation adjuster in the specification. Defendants have not, therefore, satisfied their burden to show invalidity for indefiniteness.

Accordingly, the Court construes “load compensation adjuster” to mean “a component of the suspension that adjusts the tension in the suspension spring that compensates for different loads at some or all levels of compression.”

b. “each independent suspension and wheel is movable vertically up and down relative to the main frame, respectively against and with force exerted by the spring and by the load compensation adjuster when compressed.”

The parties disagree on the interpretation of the second half of this phrase. Plaintiffs argue that “force” refers to the combined force of the load compensation adjuster and the suspension spring as a system on the wheel. Pls.’ CC Br. at 14-15. Defendants interpret “force” to refer to each of the individual forces exerted by both the spring and the load compensation adjuster on the wheel. Defs.’ CC Br. at 6-7.

The parties dispute the plain-English meaning of the claim language. Defendants assert that, if the inventor had meant a combined force, the claim would read, in relevant part, “force exerted by the spring and the load compensation adjuster when compressed.” Defs.’ Br. at 6. Plaintiffs assert that a combined force is implied by the use of a singular “force,” rather than “forces.” Pls.’ CC Br. at 14-15. The language leans in favor of Defendants’ interpretation. The use of the singular “force” would be proper sentence construction if each of the spring and the load compensation adjuster

exerted one relevant force. As Defendants point out, the use of the second “by” refers “force” to each of the spring and the load compensation adjuster individually.

However, Plaintiffs’ reading is more consistent with the specification. While Plaintiffs’ reading of the claim would include all embodiments listed in the specification, Defendants’ reading would exclude the hydraulic shock absorber. This is because a shock absorber always exerts a force that is counter to motion. So, while the shock absorber and spring would both exert a downward force on the wheel as it moves upward, the shock absorber and the spring would exert an upward and a downward force on the wheel, respectively, as the wheel moves downward. However, the net force exerted by the spring and load compensation adjuster system on the wheel would still be downward in the latter case.

The Court finds that, though Defendants’ plain-text reading of the claim is probably more correct on a purely textual level, the wording of the sentence is not so clear as to adopt that definition over one that is entirely consistent with the specification. Accordingly, the Court interprets “force” to mean the combined force of the load compensation adjuster and the suspension spring.

c. “positioning the load compensation adjuster . . . inside a respective spring.”

The parties dispute whether “inside” means that the load compensation adjuster is *entirely* inside the respective spring. Defs.’ CC Br. at 7-8; Pls.’ CC Br. at 16-17. Plaintiffs argue that a person of ordinary skill in the art would recognize “inside” to signify a suspension where the load compensation adjuster runs through, but not necessarily entirely inside, the spring rather than next to it—for example, in a coil-over suspension. *Id.* Defendants argue that if “inside” is not an absolute

measure of location, the claim is indefinite; therefore, its interpretation must be correct. Defs.' CC Br. at 7-8.

Defendants' argument is belied by the specification and patent drawings. Indeed, of the embodiments shown and described, only Overload Spring 100 would satisfy a requirement that the load compensation adjuster be located entirely within the spring.² See '678 patent figs. 12-15; col. 6:40-7:25; Dkt. No. 85, Ex. N ("Hicks Response Declaration") ¶¶ 16-17 (stating that, depending on the type of shock absorber used and the setup, a person of ordinary skill in the art would recognize that a load compensation adjuster in a coil-over suspension could extend beyond the length of the suspension spring).³ Furthermore, it is clear that for every horizontal cross-section of the suspension spring for each embodiment disclosed in the specification, the load compensation adjuster is not located outside of the spring. See '678 patent figs. 12-15; col. 6:40-7:25. Because this definition is fully consistent with both the meaning of "inside" and every embodiment disclosed by the specification, the Court construes this term to mean "positioning the load compensation adjuster such that, for every cross section of the suspension spring, the respective load compensation adjuster does not lie outside the spring."

² Although Defendants also argue that Airbag 106 is located entirely within the spring, Defs.' CC Rebuttal at 8, the Court finds that argument unavailing. The '678 patent identifies no function for Port 107 other than to adjust the inflation level of Airbag 106, and Defendants have pointed to no other potential function. See generally '678 patent; Defs.' CC Br.; Defs.' CC Rebuttal. It is not clear, then, what would make Port 107 not part of the load compensation adjuster as an integral part of Airbag 106.

³ Defendants respond to this reference by stating that the '678 patent never mentions a suspension where the load compensation adjuster would run next to the suspension spring. Defs.' CC Rebuttal at 8. However, Defendants never address the operative part of Plaintiffs' argument: whether a person of ordinary skill in the art would recognize the word "inside" to differentiate from such a system. See *id.* Accordingly, the Court credits Plaintiffs' expert's assertion as to what a person of ordinary skill in the art would interpret "inside" to mean.

d. “positioning the spring of each independent suspension to bias a respective wheel of the two wheels in a downward direction, the spring having a range of compression between uncompressed and fully compressed states.”

The meaning of the portion of the quoted sentence falling before the comma is largely uncontested by the parties. Defendants’ sole contention is that the word “always” be added before “in a downward direction” for the sake of clarity. See Defs.’ CC Br. at 8. However, this construction is unnecessary. First, the patent offers no alternative to bias in a downward direction; thus, the language is already clear that when the suspension spring is biasing the respective wheel, it is doing so in a downward direction. Second, in light of Defendants’ argument that “between uncompressed and fully compressed states” refers to the construction of the suspension rather than the limitations of the spring, it is clear even to a layperson that an uncompressed spring exerts no force. Therefore, Defendants’ construction would be false when the spring is in a fully uncompressed state, which, as the Court discusses below, Defendants assert the claim language requires. Accordingly, the Court declines to include “always” in the claim construction.

More contentious is whether the part of the sentence falling after the comma refers to an inherent property of the spring chosen for the suspension, or the mower’s design and assembly. Defs.’ CC Br. at 8-9; Pls.’ CC Br. at 14-15. Plaintiffs contend that viewing the spring’s range of motion in light of the mower’s assembly would contradict the next part of Claim 34, which states that the assembly then “prevent[s] full compression of the spring with the load compensation adjuster.” Pls.’ CC Rebuttal at 14-15; ’678 patent col. 12:1-2. In fact, the opposite is true—the claim’s phrasing serves to highlight the function of the load compensation adjuster. As Defendants point out, Claim 34 is explicitly a method of assembly. Defs.’ CC Br. at 9; ’678 patent col. 11:22-

23. The suspension spring is introduced earlier in the claim than the phrase at issue, and there appears to be no particular reason that a description of the spring's inherent range of motion belongs in this step of the claim as opposed to an earlier step. See '678 patent col. 11:22-12:6. However, Defendants' interpretation serves to highlight that, but for the function of the load compensation adjuster, the spring could move from a fully compressed to a fully uncompressed state. The next step of the assembly then describes the purpose of the load compensation adjuster in a manner that is consistent with the specification's stated purpose for this art and, more specifically, the load compensation adjuster: that, but for the load compensation adjuster, the spring would fully compress, causing coil bind, reduction of the life of the spring, and discomfort to the rider. Compare '678 patent col. 2:31-39 with id. at col. 12:1-2 (clarifying the role of the load compensation adjuster in solving a problem present in the prior art).

Accordingly, the Court construes this term to mean "positioning the spring of each independent suspension to bias a respective wheel of the two wheels in a downward direction, the spring, but for the load compensation adjuster, operating in a range of compression between uncompressed and fully compressed states."

e. “main frame”

The parties agree that a "main frame," by its plain meaning, is a "primary load-bearing structure." Defs.' CC Br. at 9. The parties disagree on whether reference to a "subframe" elsewhere in the specification requires further differentiation to give proper meaning to the "main frame" and assure definiteness. The Court cannot discern why this dispute is meaningful. As Plaintiffs point out, Defendants have adduced no evidence as to why a person of ordinary skill in the art would be unable to determine the primary load-bearing structure in a mower, and therefore they have not

shown why declining to further construe the claim would render it indefinite. See Pls.’ CC Rebuttal at 3. To the extent that Defendants argue that “coupling each wheel to the main frame” depends on the definition of a subframe, see Defs.’ CC Rebuttal at 10, it is unclear why this dispute is not captured by the definition of the word “coupled,” discussed *infra*, if the subframe is not the “primary load-bearing structure.” Accordingly, the Court will construe a “main frame” to be simply a “primary load-bearing structure.”

f. “providing a main frame with a cutter deck” and “coupling the cutter deck to the main frame”

Defendants assert that there is no valid basis to distinguish the above-quoted terms of Claim 34, and therefore the Claim is indefinite. Defs.’ CC Br. at 10-13. Central to this dispute are the meanings of the words “with” and “coupling.”

Plaintiffs argue that “providing a main frame with a cutter deck” means “providing a main frame and a cutter deck under the main frame,” and that the meaning of “coupling the cutter deck to the main frame” is apparent from the plain language. This construction, however, is unhelpful on its own because even if the “underneath” relationship can be implied from the embodiments in the specification and their descriptions as a claim limitation—which is a contentious proposition in and of itself, see Aventis Pharma S.A. v. Hospira, Inc., 675 F.3d 1324, 1330 (Fed. Cir. 2012) (finding the existence of a characteristic in one or more, or even all, embodiments not enough to impose a limitation on the claim language)—it still does not clarify the relationship between the main frame and cutter deck implied by the word “with.”

Defendants’ proffered interpretation, if the claim is not indefinite, is equally dubious because it contradicts the preferred embodiment. Defendants argue that “provides a main frame with a cutter

deck” means that the main frame “includes” a cutter deck, and that “coupling” the cutter deck to the main frame means that the cutter deck is connected “directly” to the main frame. Defs.’ CC Br. at 10. The preferred embodiment contains neither of these features. See ’678 patent col. 4:20-26 (stating that the cutter deck is suspended “from the ‘wheel-side’ of the front and rear independent suspensions”). Furthermore, if the main frame “includes” a cutter deck, why would that cutter deck then need to be coupled to the main frame?

In keeping with the Court’s construction of “the spring having a range of compression between uncompressed and fully compressed states,” the Court views the entirety of Claim 34 as a broad-to-narrow series of steps pertaining to “[a] method for assembling a mower.” ’678 patent col. 11:22-23. Among the definitions for “provide,” when used as a transitive verb, is “to make available.” WEBSTER’S II NEW RIVERSIDE UNIVERSITY DICTIONARY 948 (1988). Therefore, the first contested clause requires only that the mower be assembled in such a way that cutter deck is made available to the main frame. The cutter deck is then joined or attached to the main frame.

The question, then, is whether “coupling” requires only some kind of connection, direct or indirect, or something more. The word “coupling” is used elsewhere in Claim 34 to describe the two rear wheels’ connection to the main frame, which the clause makes explicit is through an independent suspension. ’678 patent col. 11:27. Claim 34 also uses “coupling” to describe the attachment of each of the front two wheels to the main frame, without further specificity as to how. Id. col. 12:5. However, here too the preferred embodiment describes front wheels connected to the main frame through an independent suspension, id. col. 4:11-13, which expresses no intent to signal a “direct” connection by use of the word “coupling.” Furthermore, in other contexts the Federal Circuit has held that “coupling” means no more than “linked together, connected or joined.”

Bradford Co. v. Conteyor N. Am., Inc., 603 F.3d 1262, 1265 (Fed. Cir. 2010). Therefore, the Court declines to read directness into the claim language.

2. '746 Patent

a. “central longitudinal beam”

The parties disagree both on the meaning of the word “central” and the meaning of the word “beam.” The Court previously construed each of these terms in the PI Order. “Central” was construed to mean “placement of the beams so that the first and second longitudinal pivot axes are laterally spaced from the longitudinal axis between about 0% and about 20% of the track width.” PI Order at 26. “Beam” was construed to mean “a single structural member *not composed of any other member.*” Id. at 28 (emphasis in original).

Defendants argue that the Court’s prior construction of “central” reads on U.S. Patent No. 3,719,371 to Musgrave (“Musgrave”). Central to Defendants’ argument is an analysis by its expert, Dr. Radcliffe, that Musgrave’s longitudinal pivot axes are located between about 0% and about 20% of the track width from its longitudinal axis, and the prosecution history forbids a definition that reads on Musgrave. Dkt. No. 97 (“Radcliffe CC Declaration”) at 13. However, Dr. Radcliffe’s conclusion was based on a ruler measurement of Musgrave’s specification illustrations. See id. The law is clear that patent illustrations are not to be assumed proportional to the actual invention unless specifically indicated in the specification. See Hockerson-Halberstadt, Inc. v. Avia Grp. Int’l, Inc., 222 F.3d 951, 956 (Fed. Cir. 2000). Nothing in Musgrave’s specification indicates that the patent drawings define the proportions of the invention, see generally Musgrave; therefore, the argument is misplaced. Furthermore, even if an example embodiment in Musgrave’s specification happened to satisfy the requirement of a longitudinal pivot axis between about 0% and about 20% of the track

width from its longitudinal axis, Defendants have provided no law to support why that necessarily means that Claim 1 reads on Musgrave given the additional restrictions included, and the Court is aware of none.

Defendants also argue that the placement of the longitudinal beams is entirely irrelevant to the location of the longitudinal pivot axis, rendering any definition of “central” based on the pivot axes indefinite. Defs.’ CC Rebuttal at 17. However, Dr. Radcliffe’s only stated support for that assertion is the flawed assumption that Musgrave’s patent drawings are to proportion. Radcliffe CC Decl. at 13. To the extent the assertion is still true, the Court declines to alter its existing construction of “central” without some showing as to why.

Plaintiffs seem to ignore the prior litigation as to the meaning of the word “beam” and simply argue that the plain meaning of the term supports its definition that a beam may be made up of any number of structural members. Pls.’ CC Br. at 19-20; Pls.’ CC Rebuttal at 21-22. However, as the Court discussed at length in the PI Order, the specification describes an invention as having a “frame [that] can be constructed partially or entirely of different structural members.” ’746 patent col. 26:50-51; PI Order at 27-30. Additionally, “the term ‘beam’ (whether referring to the longitudinal beams or any other beam of the frame . . .) is intended to encompass all of these structural members.” ’746 patent col. 26:55-58. It is well settled that the ordinary meaning of a word or phrase has no bearing on its definition in a patent when the inventor expresses clear intent to act as her own lexicographer. Phillips, 415 F.3d at 1316. Therefore, the Court declines to adopt a plain-English interpretation of “beam” in the context of this patent.

Accordingly, because neither party has presented evidence that calls into question the Court’s construction of “central longitudinal beam” in the PI Order, the Court maintains that

definition of the term.

b. “first and second wheels being pivotably coupled to the at least one central longitudinal beam about a first longitudinal pivot axis and a second longitudinal pivot axis, respectively”

The parties never meaningfully engage in the reconciliation of “the” and “at least one” as they refer to a central longitudinal beam. As a preliminary matter, the plain meaning of the claim would be clear if it read “pivotably coupled to at least one central longitudinal beam”: each wheel must be attached to a central longitudinal beam but, if there is more than one, not necessarily all of them. However, that is not what the claim says, and therefore the Court must address whether or not the addition of the word “the” significantly changes the meaning.

Defendants argue that the Court should look to the prosecution history, where the inventors differentiated a previous iteration of Claim 1 from Musgrave by stating, *inter alia*, that “only one wheel is coupled to each [central longitudinal beam]” in that patent. Dkt. No. 96 Ex. 4 at 8. This argument was presented in an attempt to prove that Claim 1 did not read on Musgrave. See generally id. Ex. 4. However, at the time, the claim read “pivotably coupled to the central longitudinal beam.” Id. Ex. 4 at 2. In their attempt to designate one of many potential central longitudinal beams as *the* central longitudinal beam, it is no wonder that the inventors would argue that the wheels in Musgrave were coupled to different beams. However, that provides little guidance as to the manner in which they are describing coupling in the present iteration of the claim. What’s more, the embodiments included in the approved patent application also include those that attach to different central longitudinal beams. See, e.g., ’746 patent Fig. 33.

Plaintiffs attempt to resolve the apparent ambiguity by revising the definition of “central longitudinal beam” to include several beams that together make up a beam known as “the at least

one central longitudinal beam.” However, that explanation would render the entire claim indefinite. As the Court stated in the PI Order, “if beams could be composed of other beams, a person of ordinary skill in the art would have no practicable way of distinguishing between a beam and a frame. At what point, this person would ask, does a specific conglomeration of beams go from being simply another beam to being the frame?” PI Order at 28. Because Plaintiffs have still not addressed the difference between a frame and a beam, the Court continues to interpret a frame and a beam in a way that makes them mutually exclusive.

Because the parties have provided no permissible interpretation of the claim term, and there has been no showing of indefiniteness by clear and convincing evidence, the Court simply declines to engage in further construction of this portion of the term at this time.

The parties further dispute the meaning of “about a first longitudinal pivot axis” Defendants argue that the pivot axis must be defined as running through the “center of rotation of the wheel.” Defs.’ CC Br. at 21. Defendants “support” this construction by stating, without citation or explanation as to relevance, that the RAVEN’s more complex double swing arm suspension demonstrates that a more exacting definition is necessary. It is entirely unclear to the Court what relevance the characteristics of the allegedly infringing art have on the interpretation of the allegedly infringed patent’s terms. Therefore, the Court also declines to construe this part of the term.

c. “substantially parallel”

Defendants argue that “substantially parallel” is a measure of degree not properly defined by the specification, and is therefore indefinite. Defs.’ CC Br. at 21. “When a word of degree is used the district court must determine whether the patent’s specification provides some standard for measuring that degree . . . [,] that is, whether one of ordinary skill in the art would understand what

is claimed when the claim is read in light of the specification.” Seattle Box Co., Inc. v. Indus. Crating & Packing, Inc., 731 F.2d 818, 826 (Fed. Cir. 1984). The Federal Circuit has recognized that “[e]xpressions such as ‘substantially’ are used in patent documents when warranted by the nature of the invention, in order to accommodate the minor variations that may be appropriate to secure the invention.” The use of the term “substantially” “avoid[s] a strict numerical boundary to the specified parameter.” Pall Corp. v. Micron Separations, Inc., 66 F.3d 1211, 1217 (Fed. Cir. 1995).

Defendants have not established, by clear and convincing evidence, that one of ordinary skill in the art would not be able to discern the meaning of “substantially” as it pertains to the parallel nature of beams. Indeed, they present no evidence at all regarding how one of ordinary skill in the art would interpret “substantially parallel.” Rather, they cite alleged inconsistencies between Plaintiffs’ Invalidity Response and the Hicks Declaration on indefiniteness, as well as a lack of explicit definition in the specification. Defs.’ Indefiniteness Reply at 9-10. First, Plaintiffs’ use of “substantially” or “approximately” in their papers does not contradict Hicks’ definition of “substantially” to mean “within tolerances specified by the manufacturer.” See Dkt. No. 102-3 (“Hicks Indefiniteness Declaration”) ¶ 5. Second, even if there were no guidance as to the meaning of “substantially parallel” in the specification, that fact alone does not foreclose that one of ordinary skill in the art would still be able to interpret “substantially parallel” with “reasonable certainty.” Nautilus, slip. op., at 11. Defendants seemingly forget that it is their burden to establish invalidity of the patent, not Plaintiffs’ burden to establish its validity. See Invitrogen Corp. v. Biocrest Mfg., L.P., 424 F.3d 1374, 1378 (Fed. Cir. 2005). Accordingly, the Court cannot find that “substantially parallel” is indefinite as a matter of law.

d. “laterally spaced from the longitudinal axis between about 0% and about 20% of the track width”

Defendants make exactly the same arguments regarding this claim term as they made regarding the term “substantially parallel,” again seemingly ignoring that it is their burden to show invalidity. See Defs.’ CC Br. at 22; Defs.’ Invalidity Reply at 10. However, here, the meaning of “about” is even more clear than the meaning of “substantially.” If the inventors were using “about” simply to relax the spacing requirement between the longitudinal pivot axis and the longitudinal axis, the use of “about” to modify “0%” would be meaningless: the lower bound of the set of covered distances would be zero percent regardless. The inventors’ use of “about 0%” provides support for Hicks’ assertion that “about” is being used to designate that the distance is within manufacturing tolerances of 20%. Accordingly, the Court does not find that the claim term is indefinite.

e. “first and second transverse portions” and “longitudinal portion”

The parties’ dispute regarding these terms covers two main issues: first, whether the transverse and longitudinal portions must be of substantial length; and second, whether those portions may be substantially orthogonal to and parallel to the longitudinal axis, respectively.

There is nothing in the claim language or the specification to indicate that the transverse and longitudinal portions must be of substantial length, nor is there any extrinsic evidence before the Court that one of skill in the art would read in such a restriction. Although Defendants claim that they present the side-by-side illustrations of a ’746 patent embodiment and the RAVEN to “illustrate where the parties’ dispute over the claim lies,” Defs.’ CC Br. at 23, in essence they are asking the Court to decide whether the RAVEN infringes. Cf. id. at 22-24. The Court will not

impose a further restriction on the claim language in light of the infringing product.

Furthermore, in the Court's view, whether the transverse and longitudinal portions may be substantially at a right angle to and parallel to the longitudinal axis, respectively, is inextricably linked to the requirement that the central longitudinal beam be "substantially parallel" to the longitudinal axis. Indeed, even in Figure 39, which Defendants argue clearly shows the suspension arms at right angles, the suspension arms appear to be at right angles *to the central longitudinal beam*. Because the central longitudinal beam is only substantially parallel to the longitudinal axis, then, it follows that even an exact right angle to the central longitudinal beam will be only substantially orthogonal to the longitudinal axis. Accordingly, the Court construes "transverse portions" to mean "portions substantially at a right angle to the longitudinal axis," and "longitudinal portion" to mean "portion substantially parallel to the longitudinal axis."

f. "a mower" and "a method of assembling the mower"

The parties disagree on whether the preambles of Claims 1 and 10 are limiting to include only mowers. Pls.' CC Br. at 17-19; Defs.' CC Br. at 24-25. As a preliminary matter, Defendants assert that Plaintiffs waived the right to argue the preambles are limiting by admitting that they were not in their infringement contentions under the Local Rules. Dkt. No. 96 Ex. 7 at 16, 24. The Court agrees. The Local Patent Rules' purpose in this and other jurisdictions is to compel parties to "crystallize their theories of the case early in the litigation and adhere to these theories once they have been disclosed." Atmel Corp. v. Info. Storage Devices, Inc., No. C-95-1987, 1998 WL 775115, at *2 (N.D. Cal. Nov. 5, 1998). Accordingly, deviating from the infringement contentions at this point in the litigation, without motion for amendment, is not allowed.

However, even if Plaintiffs could still argue that the preambles were limiting, that argument

would be incorrect. “[W]hen the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention,” a preamble is held to be not limiting. Am. Med. Sys., Inc. v. Biolitec, Inc., 618 F.3d 1354, 1358-59 (Fed. Cir. 2010). In the cases that Plaintiffs cite, such as Proveris Sci. Corp. v. Innovasystems, Inc., 739 F.3d 1367 (Fed. Cir. 2014), the preambles contained essential functions of the claimed invention that could not be otherwise understood. 739 F.3d at 1373. Here, the mere recitation that the vehicle is a “mower” does not otherwise render the description of the claimed invention not whole. Accordingly, the Court finds the preambles of Claims 1 and 10 to be not limiting.

IV. SUMMARY JUDGMENT

A. Legal Standard

1. Summary Judgment

Summary judgment is proper where “there is no genuine issue as to any material fact,” and thus “the movant is entitled to judgment as a matter of law.” Celotex Corp. v. Catrett, 477 U.S. 317, 322-23 (1986). “An issue of fact is genuine if the evidence is such that a reasonable jury could return a verdict for the nonmoving party.” Niagara Mohawk Power Corp. v. Hudson River-Black River Regulating Dist., 673 F.3d 84, 94 (2d Cir. 2012). The moving party must first meet a burden of production, which differs depending on whether the moving party will have the burden of proving the claim or element at trial. Celotex, 477 U.S. at 330-32 (Brennan, J., dissenting). If a moving party has carried its burden, the nonmoving party must raise some genuine issue of material fact; “metaphysical doubt as to material facts” is not enough. Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 586 (1986). That said, the court’s duty is “carefully limited” to finding genuine disputes of material fact, “not to deciding them,” Gallo v. Prudential Residential Servs., 22

F.3d 1219, 1224 (2d Cir. 1994), because the Court is required to resolve all ambiguities in favor of the nonmoving party, Reeves v. Sanderson Plumbing Prods., Inc., 530 U.S. 133, 150 (2000). The burden of persuasion remains at all times with the moving party, who must affirmatively demonstrate entitlement to judgment as a matter of law. Celotex, 477 U.S. at 332.

2. *Patent Invalidity*

Federal statute directs that patents be presumed valid. 35 U.S.C. § 282. The party moving to invalidate a patent at the summary judgment stage bears the burden of producing clear and convincing evidence of invalidity such that no reasonable factfinder could find otherwise. See Eli Lilly & Co., 251 F.3d at 962; Nat'l Presto Indus., Inc. v. West Bend Co., 76 F.3d 1185, 1189 (Fed. Cir. 1996). Patents can be found invalid for several reasons, including, *inter alia*, obviousness, lack of written description, anticipation by prior art, and, as discussed *supra*, indefiniteness. These inquiries range from pure questions of law, in the case of indefiniteness, to pure questions of fact, in the case of anticipation. See AM. COLLEGE OF TRIAL LAWYERS, ANATOMY OF A PATENT CASE 107-11 (2d ed. 2012).

a. Obviousness

35 U.S.C. § 103 requires that an invention be non-obvious in light of prior art in order to be patentable. A patent may be invalidated “if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains.” 35 U.S.C. § 103. “Obviousness is a question of law based on underlying facts.” Group One, Ltd. v. Hallmark Cards, Inc., 407 F.3d 1297, 1303 (Fed. Cir. 2005). Primary among these underlying facts are “the scope and content of prior art,” “the differences

between the prior art and the claims at issue,” and the “level of ordinary skill in the pertinent art.” Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 17 (1966). Secondary indicia of obviousness or nonobviousness include “commercial success, long felt but unsolved needs, [and the] failure of others.” Id. at 17-18.

b. Lack of written description

A patent’s specification must “contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same.” 35 U.S.C. § 112. “The hallmark of written description is disclosure,” signifying that “the inventor had possession of the claimed subject matter as of the filing date.” Ariad Pharm., Inc. v. Eli Lilly & Co., 598 F.3d 1336, 1351 (Fed. Cir. 2010). “It is not sufficient for purposes of the written description requirement of § 112 that the disclosure, when combined with the knowledge in the art, would lead one to speculate as to modifications that the inventor might have envisioned, but failed to disclose.” Lockwood v. Am. Airlines, Inc., 107 F.3d 1565, 1572 (Fed. Cir. 1997). The existence of a written description is a question of fact. See Enzo Biochem, Inc. v. Gen-Probe, Inc., 323 F.3d 956, 962-63 (Fed. Cir. 2002).

c. Anticipation

A claim is anticipated by prior art, and thus is not patentable, if “the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States.” 35 U.S.C. § 102(b). “[A] claim is anticipated if each and every limitation is found either expressly or inherently in a single prior art reference.” Whitserve, LLC v. Computer Packages, Inc., 694 F.3d 10,

21 (Fed. Cir. 2012). Anticipation is a question of fact. Leggett & Platt, Inc. v. VUTEK, Inc., 537 F.3d 1349, 1352 (Fed. Cir. 2008).

B. Analysis

1. '678 Patent

Defendants challenge the validity of the '678 patent on two grounds. First, Defendants argue that Claims 34, 35, 39, 44, and 45 are obvious in light of some combination of Musgrave and U.S. Patent No. 2,756,045 to Savory (“Savory”). Defs.’ '678 Mem. at 10-18. Defendants then argue that the same Claims lack written description in the specification. Id. at 18-22.

a. Obviousness

i. Musgrave

Musgrave discloses “a mobile work vehicle such as a riding mower” that has an “independent front suspension.” Musgrave, abstract and col. 1:36-37. The independent suspension in Musgrave employs a torsion bar spring assembly, rather than a coil-over-shock assembly, which Radcliffe asserts are known alternatives to one skilled in the art of suspension design.⁴ Id.; Radcliffe Decl. ¶¶ 46-47. The aim of Musgrave was to provide a “riding mower the frame of which is simple and economical to fabricate and reinforced by unique rod means leading [to] optimal strength while accommodating stresses and strains which normally occur in movement of the vehicle over a ground surface.” Id. col. 1:36-37.

ii. Savory

Savory discloses a rear suspension with a coil spring over a shock assembly—a “coil-over

⁴ Hicks disputes this assertion as it applies to lawnmowers. See Hicks Decl. ¶¶ 34-35. The Court discusses this disagreement in detail *infra*.

suspension”—for motorcycles. Savory, col. 1:15-20 and Fig. 1. Savory addresses the problem of the varying loads placed on a motorcycle rear suspension depending on whether a pillion passenger rides. *Id.*, col. 1:21-26. Savory uses a rubber buffer to prevent full compression of the spring if a “severe shock” were to occur with a pillion passenger on the bike. *Id.*, col. 2:36-41.

iii. prosecution history

The Court described the pertinent details of the ’678 patent’s prosecution history in the PI Order. See PI Order at 8-9. Because, as then, Defendants’ account of the prosecution history is not disputed, see generally Pls.’ ’678 Resp., the Court makes reference to the PI Order for a full description of the prosecution history.

iv. one of ordinary skill in the art

Plaintiffs argue that Radcliffe’s lack of experience in the art of lawnmower design disqualifies him from commenting on the obviousness of the ’678 patent. Because the parties here disagree on whether one skilled only in the design of vehicle suspensions and one skilled in the design of vehicle suspensions and lawnmowers would view the obviousness of the ’678 patent identically, the Court must now resolve exactly what the relevant art is.

Plaintiffs argue that familiarity with lawnmowers is an integral part of the relevant art by citing the ’678 patent’s many references to lawnmowers, which signal that careful attention must be paid to the implications of an independent suspension with load compensation adjuster in mowers. Pls.’ ’678 Resp. at 11. However, the scope of the inquiry and the choice of the relevant art depend not on the stated purpose of the inventor, but rather “the objective reach of the claim.” KSR Int’l

Co. v. Teleflex Inc., 550 U.S. 398, 419-20 (2007).⁵ Thus, the inquiry must be wider-reaching: the Court must determine whether one skilled in the art of suspension design, but not lawnmower design, could have perceived potential issues and understood the claimed invention *as it pertains to lawnmowers*.

Clearly relevant is the relationship between the art upon which the parties agree and the art that they dispute. In Mintz v. Dietz & Watson, Inc., the Federal Circuit needed only a cursory analysis to determine that skill in both the knitting art and the meat encasing art was necessary to properly understand important aspects of a new kind of netting in which to cook meat. 679 F.3d at 1376. It is not hard to see why one of ordinary skill in the knitting art would not perceive problems relating to meat encasement. However, the suspension art and the lawnmower art are much more closely connected; the suspension needs of a lawnmower are not so different from other vehicles that they could be considered wholly unrelated. Cf. id. (highlighting that the problem that the patent at issue intended to solve concerned issues with meat encasement techniques, not fabrics and knitting).

Defendants assert that if one skilled only in the suspension art perceives a set of obvious combinations of existing suspension inventions, then one skilled in both the lawnmower and suspension arts would perceive all of those obvious combinations and more. Defs.’ ’678 Reply at 6-7. However, this line of reasoning ignores that some suspensions might completely frustrate the

⁵ Although the KSR Court did not specifically define the boundaries of ordinary skill in the relevant art, the “objective reach” inquiry with respect to obviousness makes clear that the stated scope of the problem and solution perceived by the inventor holds little weight when compared to the actual purview of the invention described in the patent. See also Mintz v. Dietz & Watson, Inc., 679 F.3d 1372, 1376 (Fed. Cir. 2012) (stating that the important question is whether “the artisan of ordinary skill would not grasp many aspects of the invention” without knowledge of the contested art).

primary purpose of a lawnmower—to cut grass reasonably evenly, appear to interfere with that primary purpose to such an extent that expertise is needed to restore an acceptable level of functionality, or be otherwise impractical in context. The fact that an invention is not obvious if the relevant prior art “teaches away” from the invention further serves to illustrate this point.

The heart of the issue is whether the invention claimed in the ’678 patent is closely enough related to the essential and overall function of a lawnmower that the gravity of the invention could only be properly understood by one skilled in the art of mowers. The Court finds that it is not. The ultimate problem that the ’678 suspension seeks to address is the bottoming out of the suspension springs under varying loads and terrain demands. ’678 patent, col. 2:31-41. As is clear in light of Savory, this problem is not unique to lawnmowers. Plaintiffs’ distinction between a pillion passenger and lawn clippings, Pls.’ ’678 Resp. at 16, is meaningless; both add load to the rear of the vehicle such that they increase the likelihood of a rear suspension spring bottoming out. Plaintiffs also stress the importance of the lawnmower’s essential function of cutting grass to an even height. *Id.* at 12. However, the ’678 patent neither teaches nor discloses the solution to this problem, nor suggests any interaction between the invention and a lawnmower’s core functionality. See ’678 patent, col. 2:26-30 (“An improvement *in one of the related applications* connects the cutter deck with the rear wheels, thereby ensuring that the cutter deck moves relative to the wheels and the ground instead of relative to the chassis of the mower.”) (emphasis added); 4:56-60 (“As will be explained below, the suspension configuration of FIG. 9 is prone to rolling of types (a) and (b). If cutter deck 20 of mower 10 is suspended from the chassis, rolling may adversely affect the essential mower function, that is, cutting grass to an even height.”). That the invention does nothing to address the primary function of a lawnmower is made even more obvious by Claim 34’s vague and

perfunctory treatment of the cutter deck: as discussed above, the claimed invention requires only that a cutter deck be made available to the main frame and attached or joined to the frame in some way, either directly or indirectly. Therefore, the Court finds that the relevant art is suspensions, not mowers, and that Radcliffe is competent to testify as to obviousness.

v. analysis

Defendants assert that the combination of the independent suspension disclosed in Musgrave and the teachings of Savory would have made the claimed invention in the '678 patent obvious to one of ordinary skill in the suspension art. Defs.' '678 Mem. at 9-15. Defendants argue, essentially, that: Musgrave uses an independent suspension; a coil-over suspension, which is a claimed embodiment of the '678 patent, was to one of ordinary skill a known alternative to the torsion bar suspension; and Savory directly addresses the problem of bottoming out in a coil-over suspension. Id. Plaintiffs counter that: (1) bottoming out would not have been perceived as a problem with Musgrave, and therefore one of ordinary skill in the art would have lacked motivation to solve that problem, Pls.' '678 Resp. at 15-17; (2) Musgrave teaches away from the use of Savory, id. at 17-18; (3) simpler solutions to bottoming out existed in modifying Musgrave, id. at 18-21. The Court finds that, in light of underlying factual disputes, Defendants have not established clear and convincing evidence of obviousness.

A prior art reference “teaches away” from certain combinations with other references where “a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” In re Gurley, 27 F.3d 551, 553 (Fed. Cir. 1994). Plausible arguments that a prior art reference taught away from a particular combination create a genuine dispute of fact in the

obviousness inquiry. See Spectralytics, Inc. v. Cordis Corp., 649 F.3d 1336, 1343 (Fed. Cir. 2011) (affirming district court’s finding that a question of fact as to obviousness existed where prior art reference sought to prevent certain functionality that the disputed patent then used to its advantage).

A question of fact exists as to whether Musgrave teaches away from the combination with Savory. Musgrave did not employ a coil suspension as its independent front suspension; a torsion bar system was used. Musgrave col. 6:66-7:40 and Figs. 3, 10. Although coil springs and torsion bars are “well-known alternatives,” Defs.’ ’678 Mem. at 13, even Defendants agree that, in some situations, the choice of one is preferable to the other, see Defs.’ ’678 Reply at 6 (“Indeed, th[e] GM patent suggests that coil springs are preferable to torsion bars for “off-road type driving situations,” providing a reason to substitute Savory for Musgrave’s torsion bars for certain applications.”). Because torsion bars move longitudinally down the vehicle to accommodate different loads, rather than simply compressing up and down, Dkt. No. 92-2 (“Hicks SJ Declaration”) ¶ 34, they “maintain a desired relation of the [main] platform and the front wheels in any instance, irrespective of their joint or relative movements,” Musgrave col. 7:29-34. The gravity of this assertion, according to Hicks, is that the substitution of a coil spring would not yield the same desired relationship between the front wheels and the main platform to which the cutting deck is attached. Hicks SJ Decl. ¶ 35. It is significant to the Court that, in order to restore that same level of functionality and desired relationship using a coil suspension, the ’678 patent admits in plain terms that an entirely different patent is necessary. ’678 patent col. 2:26-30 (“An improvement in one of the related applications connects the cutter deck with the rear wheels, thereby ensuring that the cutter deck moves relative to the wheels and the ground rather than relative to the chassis of the mower.”).

Accordingly, the Court finds a question of fact as to whether Musgrave teaches away from the incorporation of Savory. However, even if Musgrave did not directly teach away from the use of Savory, the benefits of the torsion bar system in Musgrave still require Defendants to show some motivation for the combination with Savory beyond a conclusory statement that the '678 patent constitutes "the predictable use of prior art elements according to their established functions," KSR, 550 U.S. at 417, and Defendants have not done so, see generally Defs.' '678 Mem.; Defs.' '678 Reply. A showing of motivation is even more important given that simpler modifications could have been made to Musgrave to reduce the shock caused by metal-on-metal contact while retaining the benefits of a torsion bar system. See Pls.' '678 Resp. at 18-19; Hicks '678 Decl. ¶ 51.

Plaintiffs further argue that Musgrave teaches away from Savory because it claims that it provides "ease and comfort" even though the torsion bars can "bottom out." Pls.' '678 Resp. at 16-17; Musgrave col. 6:27. This argument fails. There is no indication in Musgrave's specification that the choice of torsion bars—as opposed to other suspension methods—is what causes the ease and comfort of the claimed invention. See generally Musgrave. Indeed, it is entirely possible that such a system, with its independent front suspension, was an improvement on the prior art but could nevertheless be improved with respect to comfort by use of a coil spring. Accordingly, the Court does not find a genuine dispute that Musgrave taught away from the use of Savory in this regard.

However, because genuine disputes of fact exist as to motivation and whether Musgrave teaches away from using the coil spring suspension in Savory, a grant of summary judgment is inappropriate at this stage on the issue of obviousness.

b. Lack of written description

Having found that Defendants have not met their burden of proving obviousness, the Court

next considers whether the same claims lack a written description. This dispute centers around whether or not the patent actually discloses that the shock absorber embodiment of a load compensation adjuster prevents full compression of the spring, as Claim 39 states in combination with the claim on which it depends, Claim 34. The Court finds that it does not, and thus Claim 34 and all of the dependent claims lack written description.

Plaintiffs state that “the ’678 patent ties the prevention of coil bind directly to the load compensation adjuster.” Pls.’ ’678 Resp. at 24-25. This is, of course, true: Claim 39 identifies the load compensation adjuster simply to be a “shock absorber,” as does the specification. ’678 patent cols. 52-54 and Fig. 14 (identifying and portraying a “shock absorber embodiment of the load compensation adjuster” and indicating only two relevant pieces of equipment, the shock absorber and the coil spring); 7:8-12 (stating that the change in the load compensation adjuster in the drawing embodiment is a substitution of Shock Absorber 102 for Overload Spring 100). As discussed *supra*, the clear text of the specification indicates that it intended the shock absorber, not a coil-over suspension, to be the load compensation adjuster. *Id.*; Pls.’ ’678 Resp. at 25.

“The written description requirement also ensures that when a patent claims a genus by its function or result, the specification recites sufficient materials to accomplish that function.” Ariad Pharm., 598 F.3d at 1352. The specification does not identify sufficient materials to ensure that the invention described in Claim 39—the method for constructing a lawnmower with independent suspension and load compensation adjuster where the load compensation adjuster is a shock absorber—accomplishes that function; but Plaintiffs argue that Claim 39’s recitation of a “coil-over suspension” makes clear to a person of ordinary skill in the art that additional materials, such as a jounce bumper, would be used. Pls.’ ’678 Resp. at 24-25. But Ariad is clear that enablement is

only one aim of the written description statute—the inventor must also demonstrate that it possessed the claimed invention at the time of filing. 598 F.3d at 1352. So, although “a person of ordinary skill in the art would have readily known how to use these adjusters to prevent full compensation of the spring,” Pls.’ ’678 Resp. at 25, the existence of that extra step demonstrates that the requirements of Ariad were not met.⁶

It is clear that the original purpose of the ’678 patent was never to fully prevent full compression of the spring; accordingly, it is no wonder that there is no written description for that functionality in the specification. The inventor of the ’678 patent has testified that the ’678 patent’s purpose was instead “to *reduce the likelihood* of bottoming out by putting another element into the lawnmower that would relieve some of the load.” Dkt. No. 85, Ex. GG at 75 (emphasis added). This explanation makes sense in light of the choice to use a shock absorber and that, even for the overload spring preferred embodiment, the specification never teaches how the load compensation adjuster actually prevents bottoming out of the spring. See generally ’678 patent. Because there is no dispute of material fact, the Court finds that Claim 34 and all of its dependent claims fail to satisfy 35 U.S.C. § 112 for failure to provide a written description.

2. ’746 Patent

Defendants also challenge the validity of the ’746 patent. First, Defendants argue that the ’746 patent is anticipated by two pieces of prior art: U.S. Patent No. 6,101,794 to Christopherson *et al.* (“Christopherson”), and the 1988 Yamaha Terrapro (“Terrapro”). Defs.’ ’746 Mem. at 9-14.

⁶ Additionally, that line of reasoning is belied by the inventors’ assertions during prosecution that Claim 34 and its dependents were not obvious in light of Ogasawara and Allison because Allison never disclosed a method to prevent full compression of the suspension spring. ’678 patent Ex. E at 13.

Second, Defendants argue that if the Court finds that one piece of prior art does not anticipate some elements of the '746 patent's Claims while the other does, those elements are are obvious. Id. at 14-15.

a. Anticipation

i. Christopherson

Defendants' arguments as to Christopherson's anticipation of the '746 patent again rely on a patent drawing analysis undertaken by their expert, Dr. Radcliffe, to establish the existence of longitudinal pivot axes within about 0% and about 20% of the track width from the longitudinal axis and, by extension in accordance with the Court's claim construction, a central longitudinal beam. Id. at 12. Defendants cite Vas-Cath, Inc. v. Mahurkar, 935 F.2d 1555 (Fed. Cir. 1991) to support the proposition that "one of ordinary skill in th[e] art, looking at the [patent] drawings, would be able to derive the claimed range." 935 F.2d at 1566. However, the Vas-Cath court found that an element of the claim at issue was met not on the basis of an analysis of the patent drawings, but based on expert testimony that a design outside of the claimed dimensions would have biologically frustrated the purpose of the invention. Id. That resolution is completely consistent with the Federal Circuit's mandate that patent drawings not support conclusions about the relative proportions of the claimed invention without express indication in the specification that the drawings are to scale. Hockerson-Halberstadt, 222 F.3d at 956. Accordingly, Defendants cannot establish by clear and convincing evidence that the '746 patent is invalid for anticipation by prior art.

ii. Terrapro

Defendants argue that, based on Radcliffe's analysis of an actual Terrapro model, the Terrapro anticipates every element of the '746 patent. Defs.' '746 Mem. at 14. The Terrapro,

however, is not a lawnmower, but an all-terrain vehicle (“ATV”) for which users can purchase a lawnmower attachment. Although the Court determined *supra* that the preambles to Claims 1 and 10 are not limiting, that does not end the inquiry as to whether the Terrapro qualifies as prior art—which a reference must be to establish anticipation. See, e.g., CA, Inc. v. Simple.com, Inc., 780 F. Supp. 2d 196, 210 (E.D.N.Y. 2009). The Court must therefore determine the relevant art for the ’746 patent.

Unlike the ’678 patent, the ’746 patent’s specification consistently focuses on the implications of the design choices for the evenness of the cut of grass and the life of the mower as a whole. See ’746 patent cols. 1:34-42 (describing, *inter alia*, the problem of “uneven cuts” and “mower wear and tear” present in the prior art), 1:55-2:3 (describing limitations of floating cutter decks in the prior art, which produce scalping and uneven cuts of grass); 2:9-24 (describing “uneven and unsatisfactory” cuts of grass produced by prior art front wheel designs); 2:25-39 (discussing limitations of prior art usages of independent spring suspensions on grass cut quality); 2:60-3:3 (identifying among problems that the claimed invention intends to solve: “cutter deck motion”; “cutting performance and quality”; and “mower damage from vibration and shock”); 3:39-52 (describing how the claimed suspension “result[s] in a higher-quality cut and an improved ride”); 3:53-60 (describing advantages of the suspension assembly on mower life and need for maintenance); 3:61-66 (describing improvements to cutter deck tracking over terrain). The ’746 patent thus much more closely resembles the Federal Circuit’s analysis in Mintz. 679 F.3d at 1376. Accordingly, the Court finds for the purposes of the ’746 patent that the relevant art includes both lawnmowers and suspensions.

The Court finds a question of fact in whether one of ordinary skill in the lawnmower art

would find the Terrapro to be prior art. Because Radcliffe has admitted that he has no prior experience in the design or analysis of lawnmowers, see Pls.’ 746 Resp., Ex. 1 at 21:9-15, he is unqualified to determine what is and is not prior art in the art of lawnmowers. See, e.g., Sundance, Inc. v. DeMonte Fabricating Ltd., 550 F.3d 1356, 1363 (Fed. Cir. 2008). However, even if Radcliffe were competent to testify, Plaintiffs’ experts have provided sufficient evidence to create a dispute of fact. For example, one expert, Denis Del Ponte, has laid out characteristics that one of ordinary skill in the art would identify with a lawnmower, and explained that the Terrapro does not meet those characteristics. Dkt. No. 93-3 (“Del Ponte Declaration”) ¶¶ 65-75. Because the Radcliffe Declaration makes no mention of what would qualify the Terrapro as a mower, see generally Radcliffe Decl., a genuine issue of fact remains, and thus summary judgment is inappropriate.

b. Obviousness

Defendants further allege that the ’746 patent is obvious in light of some combination of the elements disclosed by the Terrapro and Christopherson. Defendants appear to argue that, if one of either the Terrapro or Christopherson discloses each element of putatively infringed claims, a finding of obviousness is the logical outgrowth of that disclosure. However, that argument is insufficient to satisfy the moving party’s burden of proof on summary judgment for obviousness.

When a party seeking to invalidate a patent combines multiple prior art references in an attempt to show obviousness, it must show why a person of ordinary skill would have combined those references. See, e.g., Kinetic Concepts, Inc. v. Smith & Nephew, Inc., 688 F.3d 1342, 1366 (Fed. Cir. 2012). Defendants support their motion by arguing that the combination of the Terrapro and the Christopherson is “the predictable use of prior art elements according to their established

functions.” Defs.’ ’746 Reply at 9 (citing KSR, 550 U.S. at 417). But unlike in KSR, the combination of the Terrapro and Christopherson is not merely the pairing of two distinct elements; it is the mixing and matching of elements of each to form a new breed of mower. KSR, 550 U.S. at 417. Defendants have proffered no evidence as to why one of ordinary skill in the art would have been able to isolate individual elements of the Terrapro and Christopherson as advantageous and combine them into the ’746 patent. See generally Defs.’ ’746 Mem.; Defs.’ ’746 Reply. Because whether there was motivation to combine is an underlying question of fact in the obviousness inquiry, Kinetic Concepts, 688 F.3d at 1367, a material dispute of fact remains, and therefore summary judgment is inappropriate.

What’s more, the opinion of an expert not skilled in the relevant art cannot form the basis for a finding of obviousness. Sundance, 550 F.3d at 1364. As discussed above, the relevant arts for analysis of the ’746 patent are suspensions and mowers, and Radcliffe has admitted that he lacks any experience in the design and analysis of lawnmowers. Accordingly, his opinion cannot form the basis for a finding of obviousness. Defendants’ Motion regarding the ’746 patent is therefore denied.

V. CONCLUSION

Accordingly, it is hereby:

ORDERED, that Defendants’ Motion (Dkt. No. 82) for summary judgment of invalidity of U.S. Patent No. 6,510,678 is **GRANTED**. Claims 34, 35, 39, 44, and 45 are **INVALID** because they lack written description as required by 35 U.S.C. § 112;

ORDERED, that Defendants’ Motions (Dkt. Nos. 83, 95) for summary judgment of invalidity of U.S. Patent No. 7,107,746 and for summary judgment of invalidity for indefiniteness

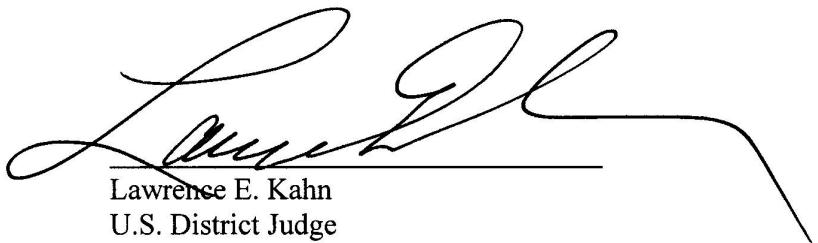
are **DENIED**; and it is further

ORDERED, that the Court shall construe the terms of all surviving claims highlighted in the parties' claim construction Briefs (Dkt. Nos. 91, 94) consistently with this Memorandum-Decision and Order; and it is further

ORDERED, that the Clerk of the Court serve a copy of this Memorandum-Decision and Order on all parties in accordance with the Local Rules.

IT IS SO ORDERED.

DATED: September 30, 2014
Albany, New York



The image shows a handwritten signature in black ink, which appears to read "Lawrence E. Kahn". Below the signature, there is a horizontal line. Underneath the line, the name "Lawrence E. Kahn" is printed in a standard font, followed by "U.S. District Judge" in a smaller font.